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California’s Bay Delta Conservation Plan and Governor Brown’s Tunnels

TORI SUNDHEIM · MARCH 18, 2013

The Bay Delta Conservation Plan (“BDCP”) has recently dominated California water news, particularly since Secretary of the Interior Ken Salazar and California Governor Jerry Brown announced the Delta tunnel plan, now coined “Brown’s Tunnels.” However, there is little discussion of what exactly the BDCP is and how it may be seen to fruition. The media alternately characterizes the proposals as either an excuse to increase the amount of water exported from Northern California, or the best way to restore California’s environment and preserve water supplies for municipal, agricultural, and other consumptive uses. This inconsistent rhetoric fails to provide information to help the public understand what the BDCP is, how it relates to “Brown’s Tunnels” and why some might be for or against it.

THE BDCP AND “BROWN’S TUNNELS”

The BDCP is a water user-driven effort initiated in 2005 with support from the California legislature, partly as a reaction to the failure of prior efforts to resolve water supply/ecosystem conflicts in California’s Sacramento-San Joaquin Bay Delta (“Delta”). In California, the federal Central Valley Project and the California State Water Project (collectively “Projects”) divert and store water in the relatively wet northern part of the State and then release that water from storage and pump it through the Delta to the drier, more populous portions of the State. The transportation of water through the Delta—and the resulting changes in flow, water quality, and other environmental parameters—is considered a key cause of the decline of the Delta’s environmental health. This decline continues to occur despite the reduction of water supply for the Projects and their contractors from the operating permit’s Reasonable and Prudent Alternatives (“RPA”) to the Biological Opinions written by the Fish and Wildlife Services and National Marine Fisheries Service. Further restrictions are imposed by the State Water Resources Control Board’s (“Water Board”) flow objectives. The contractors are largely public agencies that provide water to urban and agricultural customers through the State of California whose contracts provide shortage provisions allowing for the reduction of water to meet state and federal environmental laws and permits, such as the RPAs, flow objectives and other operational restrictions.

In the face of this turmoil, the BDCP’s purpose is to provide the Projects with a comprehensive approach to address the Delta’s challenges while gaining a streamlined fifty-year take permit with “no surprises” assurances, at an estimated cost of $14 billion to comply with state and federal endangered species laws. This cost will continue to change, especially once the BDCP team releases its Chapter 8 documents the week of April 22, 2013.

The BDCP proposes to incorporate large-scale ecosystem restoration in the Sacramento-San Joaquin Delta rather than the current and former species-by-species approach using the best available science and an adaptive management and monitoring program. At the same time, recognizing that water diversions also serve public interests, the BDCP also seeks to improve water supply reliability. At present, nine water supply and conveyance alternatives are being studied, the most controversial of which is the preferred alternative mentioned by Brown during a press conference (hence the so-called “Brown’s Tunnels”).

This “plumbing” proposal relies on a conveyance system that would circumvent water around the Delta using two thirty-five-mile-long tunnels. This proposed conveyance system is an effort to reduce the current reversal of natural flows in the Delta and increase the Projects’ flexibility. This would in turn allow the BDCP to operate from one facility if the other must be shut down in the event of flooding, seismic activity, or increased instream requirements in the Delta. The BDCP would continue to rely on the South Delta Pumps during much of the year, so flow reversal would only be reduced

when the new pumps are operated, unless the new diversions are also large enough to cause reversal of flows and saltwater intrusion farther up the Sacramento River. The fundamental idea of the BDCP, including the “tunnels,” is to achieve “co-equal goals” of ecosystem protection and water supply reliability.

BDCP LEGAL REQUIREMENTS

Partly in response to the Delta environmental and water crisis, in 2009 the California legislature enacted a historic Water Reform Legislative Package, which includes the Delta Reform Act of 2009 (“Delta Reform Act”). The Delta Reform Act lays out the legal requirements the BDCP must meet. If successfully completed, the BDCP will be adopted as part of the Delta Stewardship Council’s (“Council”) Delta Plan.

The BDCP is a joint state and federal project designed to meet the requirements of both state and federal law. It aspires to the coexistence of agricultural and economic interests with environmental requirements (the “coequal goals”) and claims that the proposed tunnels, in conjunction with critical habitat restoration, will help recover listed species. Specifically, the BDCP is intended to be both a Natural Community Conservation Plan (“NCCP”) and Habitat Community Plan (“HCP”) pursuant to the state and federal Endangered Species Acts. The lead agencies are the California Department of Fish and Game, the Department of Water Resources, the Fish and Wildlife Service, and the National Marine Fisheries Service. These agencies are working together with a consortium of other responsible agencies and the BDCP proponents.

Pursuant to California’s Natural Community Conservation Plan Act, a NCCP is designed to protect multiple species comprehensively and restore their habitats; in return, signatories obtain exemption from liability for “take” of listed species. Participants who adhere to an approved plan are to some degree protected from future land or monetary requirements caused by subsequent species listings, often termed “Babbit’s no surprise policy,” which is viewed as an attractive opportunity for the water contractors. The NCCP lead agency is the state Department of Fish and Game. The NCCP must be consistent with the California Environmental Quality Act (“CEQA”), and pursuant to CEQA an Environmental Impact Report (“EIR”) will be prepared. This EIR must include feasible mitigation measures and alternatives related to the biological impacts on covered species and their habitat, including: “flow criteria, conveyance alternatives, climate change effects, effects on migratory fish and aquatic resources, potential effects on Sacramento and San Joaquin River flood management, natural disaster recovery and potential effects on Delta water quality.”

The federal equivalent to the NCCP is a Habitat Conservation Plan (“HCP”).The HCP lead agencies

are the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (“NMFS”). The National Environmental Policy Act (“NEPA”) requires an Environmental Impact Statement (“EIS”). These agencies will work with the BDCP team to prepare a joint EIS/EIR. If all goes well, that process will result in an approved NCCP/HCP.

THE TUNNELS’ POTENTIAL EFFECT ON WATER SUPPLY AND SPECIES PROTECTION

It is difficult to determine the potential effects of “Brown’s Tunnels” on water supply and species protection until certain details are determined, including the number of intakes, the diversion capacity of the intakes, the conveyance capacity of the “tunnels,” and approved operating criteria. But by law, these details cannot be addressed until after the environmental review (including the EIS/EIR) is complete. Options being considered for study in the EIS/EIR are the intakes (which have been reduced from an initial five to three) and the capacity (which has been reduced from 15,000 cubic feet per second (“cfs”) to 9,000 cfs). By some calculations, a 9,000 cfs tunnel could divert over 6.5 million acre-feet per year. However, that figure is misleading, because water projects rarely divert at full capacity; instead, intake and conveyance facilities are designed so projects can adjust to permit requirements and also divert during wet periods and store that water for release during dry periods.

The Projects’ current average annual yield is 4.7 million acre-feet, but not all of this water is “Delta” water. Moreover, only a portion of the water is delivered through the Delta, so only a portion of this water would be affected by the BDCP. The rivers flowing into the Delta include the Sacramento, San Joaquin, Mokelumne, Cosumnes, and Calaveras. These rivers and their tributaries carry about half of the State’s total annual runoff. The south of Delta projects are supposed to divert a portion of this water to Exchange Contractors, Kern County, Santa Clara Valley, Metropolitan Water District and San Luis Contractors, which also includes Westlands Water District.

Project contractors do not currently receive all of the water promised to them during dry years. For example, SWP deliveries have ranged from 1.4 million acre-feet in dry years to over 4.0 million acre-feet in wet years. But even in a year like 2011 where there were record exports totaling 4,545,937 acre-feet, south of Delta diversions still only received 80% of their contracted amount; Westlands received 1,529,200 acre-feet/ 1,911,500 acre-feet and Metropolitan 920,000 acre-feet/ 1,150,000 acre-feet. This inconsistency results from two factors. The first factor is drought—California has seen a string of multiple dry years, as it often does. The second factor is restrictions on water diversions designed to protect aquatic and riparian species and ecosystems pursuant to ESA permits.

One of the purposes of the BDCP, including “Brown’s Tunnels,” is to address this second factor. To the extent that deliveries are currently restricted for environmental protection, those deliveries can be

increased once environmental concerns are addressed. The media often mischaracterizes the BDCP on this issue; the BDCP does not promise the Projects new water rights and the Tunnels are not intended to increase diversion beyond the Projects’ existing rights. Instead, the idea is that the Projects will receive more of the water already promised to them under their existing rights, and they in turn will be able to deliver this water to their contractors, who deliver the water to municipal and agricultural customers throughout the State.

Habitat restoration is another Project feature under scrutiny, as there are questions about what the historic Delta looked like and how to change the landscape to recapture that historic state. What is clear is that the degradation of endangered species has resulted from loss of critical habitat. Habitat loss has resulted from multiple stressors, including but not limited to: water quality, flow, predation, habitat barriers, entrainment, hydrologic changes, hatcheries, climate change and change in nutrient loads. Habitat restoration requires addressing these stressors collectively and providing space for species to recover. Another problem is that science does not provide guarantees that this restoration will contribute to species growth. A recent study by the National Research Council found efforts to eliminate any one stressor are unlikely to reverse the decline in species population. Of course, this study does not mean that efforts to eliminate these stressors will fail or should not be attempted, but the uncertainty is a concern for those who would provide the several billion dollars of funding for the BDCP, including the public and Project contractors.

FUNDING

Water users’ and contractors’ willingness to pay for the tunnels depends greatly on the eventual capacity of the conveyance system. The proposed conveyance system criteria, including the number of intakes, how many cubic feet per second the facility would divert and what kind of decision tree would be used to incorporate the best available science, will be announced later this year. Once the Implementation Costs and Funding Sources chapter is released, it will contain the costs related to primary components of the BDCP as well as potential funding sources. The cost of the BDCP is currently estimated at $14 billion. BDCP funding for the habitat component will largely come from the $11 billion water bond (which was scheduled to be on the 2012 ballot but was delayed until 2013-2014) as well as other public funds pending the BDCP’s inclusion in the Delta Stewardship Council’s Delta Plan.

However, the funding related to the “plumbing” must come directly from Project contractors; their willingness to pay may depend in large part on the ultimate size and operational details of the new “Tunnels” conveyance system because these details will determine the scope of water supply benefits from the BDCP. In this regard, Project contractors are typically public agencies that deliver water for

municipal and agricultural purposes. These agencies must justify expenditures to their constituents.

THE BDCP’S UNCERTAIN FUTURE

Although the BDCP is a legally recognized process and constituents have worked tirelessly through the planning stages, it is an increasingly complex, expensive, and controversial process. Many key components must still be developed before success might be achieved.

First, the BDCP will have to incorporate the new flow standards the Water Board will set within the next few years. The Board has been mandated to set new flow standards as a result of increased litigation over protecting Delta fish species. These new standards may impose drastically different requirements, which will have a direct impact on the amount of water the Projects can divert and the options for managing Delta water resources.

Second, several specifics of the tunnels have yet to be legally proposed, including the capacity and design of the pumps and conveyance systems, where they would be located, and how they would be built and operated. There are no guarantees that the current proposals will remain viable, and the willingness of Project contractors and the State to help fund the BDCP depends on the final numbers. The water bond delay increases this uncertainty.

Finally, there is disagreement about the balance of costs and benefits, economic and otherwise, of implementing (or failing to implement) the BDCP. The BDCP recognizes that agricultural and economic interests may coexist with environmental requirements so long as California can develop the infrastructure necessary to provide key habitat restoration. As this process develops, California continues to devote its best efforts to provide a workable solution for ecosystem and water supply reliability concerns.

For more information, visit the Bay Delta Conservation Plan website at www.baydeltaconservationplan.com.

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